Lewis's Woodpecker Trapping Research Update

Kate Stone, William Blake

11/25/14

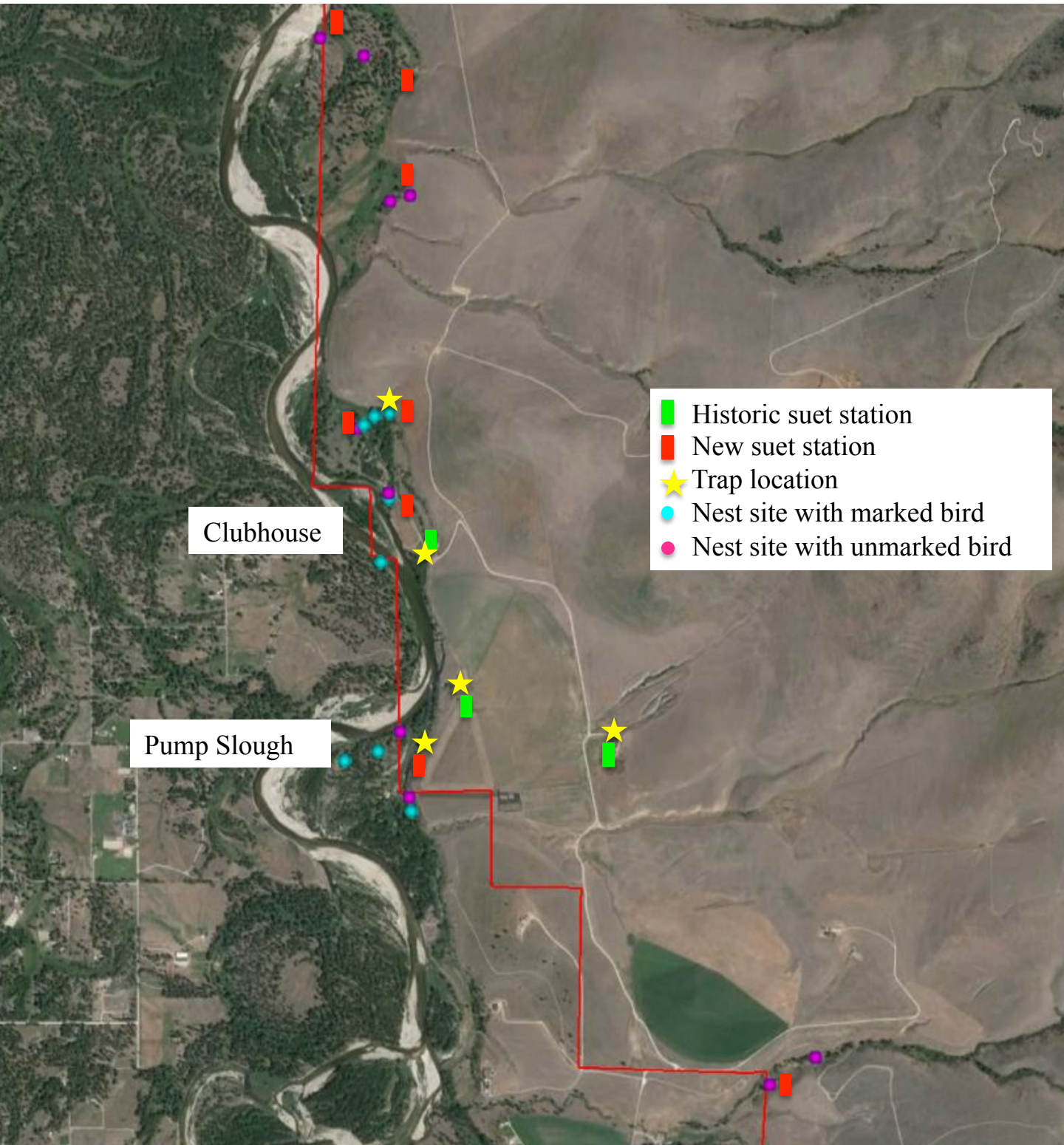
Table of Contents

Summary.....2
Trapping Effort.....3
Capture Success.....4
Drop-down Trap.....6
Cage Trap.....9
Noose Trap.....10
Failed Methods.....12
Future Directions.....13

Summary
This report summarizes our attempts to capture Lewis's Woodpeckers during the 2014 breeding season. We tested a variety of capture methods and ultimately trapped 12 individuals using three types of traps. We recaptured one woodpecker within the trapping period for a total of 13 capture events. We caught our first woodpecker on June 18th and our last on July 7th. We observed all but two of our marked individuals at nearby nests. In the future, we plan to put more effort into trapping early in the season and to devise ways to target specific individuals at nest sites.

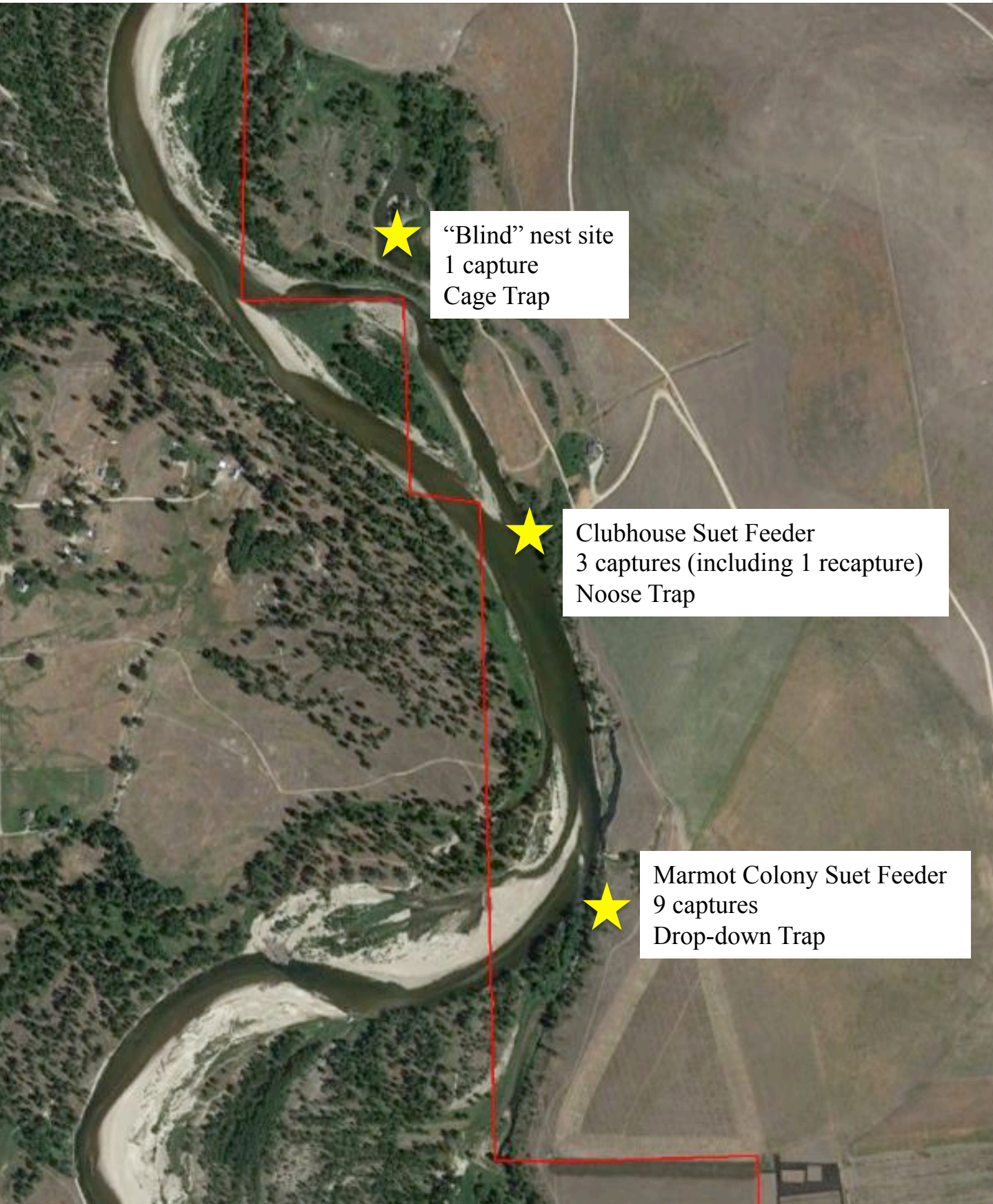
Trapping Effort

Our trapping strategy centered on the use of suet to attract Lewis's Woodpeckers, based on past observations of their frequent visits to feeders. We maintained suet stations at historic feeding sites (feeders present for > 2 years) and near nest sites. Stations at the far north and far south ends of the property saw little use; they were farthest from historic feeding sites. The central stations saw heavy use from birds nesting in the Clubhouse and Pump Slough areas. We concentrated trapping efforts near feeders with activity. Consequently, we had more marked birds near trapping locations than far from them.



Capture Success

Although we set traps in several areas, we caught birds at only three locations. Most captures occurred at historical feeding stations.



One issue we had with trapping near nest sites is that individual woodpeckers (presumed to be male) would guard the feeder and chase other woodpeckers away from it. Although we often saw many woodpeckers together at historical feeding stations, these individuals showed little territorial behavior.

Drop-down Trap

We trapped the majority of woodpeckers using a drop-down net trap designed by William Blake. We tried variations of this drop-down trap throughout the trapping season.

The trap consisted of weighted netting material released by a trigger system set above a suet feeder. We could operate the trigger release from a vehicle or ground blind by pulling a string. Most failed captures occurred when the net did not drop fast enough and the woodpecker escaped below it. Setting the net below the level of the suet and improving trigger design allowed us to increase capture success. We also felt that having a perch near the trap increased visitation rates.

In one instance, a woodpecker caught itself.

Black-billed Magpies visited our suet stations and traps more than any other species.

Cage Trap

We also constructed and tested a cage trap. We used a roll of fishing line under tension to secure the door open and then released it to drop the door when a bird entered the trap. This trap was more portable and faster to deploy than our drop-down trap. Magpies had no problem figuring out the trap and using it routinely, but some woodpeckers were obviously shy of entering the trap or could not figure out how to enter it. The placement of a perch on the outside of the trap increased visitation rates. Though we only tried this trap a few times, it was the only trap to capture a bird at its nest site.

Noose Trap

We noticed that many woodpeckers would visit a normal suet feeder but seemed hesitant to approach the drop-down or cage trap. Towards the end of the trapping season, we put monofilament nooses on two suet feeders, similar to the bal-chatri trap used to catch raptors. We placed nooses low on the feeder to limit the potential that a woodpecker would be caught by its head. We think this method has great potential. Our captures were limited because we did not attempt this method until late in the season, when woodpeckers had shifted their foraging efforts towards berries and insects. Also, individual woodpeckers that had been trapped would often remain in the area and prevent other woodpeckers from approaching. In the future, we may use different material to make the nooses; the clear monofilament we used glinted in the sun and several woodpeckers appeared suspicious of its presence.

The dense shrubs around the Clubhouse allowed us to keep our eye on the noose trap (arrow). For this type of trap, quick response time limited the potential for bird injury or recapture of an already marked individual.

Failed methods

We tried setting up mist nets around a well-used feeder at the Orchard House. We captured numerous Brown-headed Cowbirds, but woodpeckers avoided the nets, and we abandoned this method. Late in the season, we tried to capture woodpeckers by approaching nest cavities with a decoy magpie surrounded by a mist net. We hesitated to try this method due to its invasive nature. During our two attempts, the decoy's approach elicited agitated vocalization from the woodpeckers, but they made no attempt to approach it. We also encountered difficulty raising the decoy high enough without catching it on tree branches. We would not recommend this method.

Future directions

To catch more woodpeckers next year, we plan to start trapping earlier in the season because we observed many woodpeckers at the historical feeding stations prior to the onset of breeding. Before breeding season, birds are less territorial, they have fewer food options available, and they are not yet preoccupied with feeding nestlings and staying close to nests.

Future directions

Our “historical” feeding stations that attracted large numbers of woodpeckers have only been up for two to three years. The ability for woodpeckers to find and remember feeding stations suggests that we could set up additional bait stations and expect woodpeckers to use them in the future. This strategy does not allow us to target specific individuals, but most of the birds we captured in 2014 did occupy nearby nest sites.

This woodpecker visits a feeder in a new location.

Future directions

We want to increase our ability to target individuals at specific nests. For nests with birds conditioned to suet feeders, we may try more suet feeders with nooses. During incubation, we may use extension poles to place nets over nest entrances to to capture exiting adults. This method is widely used to capture cavity-nesting birds, but nest height and obstructing tree branches may limit our ability to reach some cavities.

Using our traps, we never caught the adults woodpeckers at this nest near the Pump Slough. The nest cavity is low enough that we could capture adults at the nest entrance during an incubation switch. The pair also frequented a nearby suet feeder but would not approach the drop-down trap; we may try the noose feeder to capture them.

Future directions

Devising ways to capture specific individuals will also be important if we need to recapture an individual. We saw very few woodpeckers return to the traps after capture, raising the concern that we might have little success recapturing individuals if we needed to (e.g., to retrieve a tracking device). Those that did return to trap sites seemed to be territorial males and we would see them near the traps repeatedly. We don't know if woodpeckers learned to avoid the traps after capture, or if other factors, like seasonal changes in food availability or the rearing of young, may have decreased visitation rates to feeding stations.

If our marked woodpeckers return next season, we will monitor their use of feeding stations to assess the potential for recapture. We may need to use different trapping techniques (e.g., net at cavity entrance during incubation) to specifically target marked individuals.

This individual was one of the few that we re-sighted near the traps after capture. Its nest was 0.3 miles from the suet feeder.